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Revision 0

# **Hanford Site Air Operating Permit Semiannual Report for January 1, 2007 Through June 30, 2007**

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management



**United States  
Department of Energy**  
P.O. Box 550  
Richland, Washington 99352

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# Hanford Site Air Operating Permit Semiannual Report for January 1, 2007 Through June 30, 2007

N. A. Homan  
Fluor Hanford, Inc.

Date Published  
August 2007

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management



**United States  
Department of Energy**  
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Release Approval

*08/09/2007*  
Date

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**Certification For**


**Hanford Site Air Operating Permit  
Number 00-05-006 Renewal 1**

**Semiannual Report January 1, 2007, through June 30, 2007**

**Certification:**

In accordance with WAC 173-401-200(29)(c) as the responsible official, I certify, pursuant to WAC 173-401-520, that, based on information and belief formed after reasonable inquiry, the statements and information provided in this Semiannual Report are true, accurate, and complete.

 8/15/07  
S. J. Olinger<sup>1</sup>, Acting Manager      Date  
U.S. Department of Energy  
Office of River Protection

 9/17/07  
D.A. Brockman<sup>2</sup>, Manager      Date  
U.S. Department of Energy  
Richland Operations Office

<sup>1</sup> For emission units under control of the U.S. Department of Energy, Office of River Protection.

<sup>2</sup> For emission units under control of the U.S. Department of Energy, Richland Operations Office.



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## ACRONYMS

AOP	Air Operating Permit
BCAA	Benton Clean Air Authority
CAM	continuous air monitor
CFR	Code of Federal Regulations
CH2M	CH2M Hill
CSB	Canister Storage Building
CVDF	Cold Vacuum Drying Facility
CWC	Central Waste Complex
DAC	derived air concentration
DOE	U.S. Department of Energy
DOE-RL	U.S. Department of Energy, Richland Operations Office
DOE-ORP	U.S. Department of Energy, Office of River Protection
DP	differential pressure
dpm	disintegrations per minute
DVS	drum venting system
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ETF	200 Areas Effluent Treatment Facility
EU ID	emission unit identification
FFTF	Fast Flux Test Facility
HAMMER	Hazardous Materials Management and Emergency Response Training Center
HEGA	high-efficiency gas adsorber
HEPA	high-efficiency particulate air
ISA	Interim Storage Area
LAW	low-activity waste
LERF	Liquid Effluent Retention Facility
MEI	maximally exposed individual
mrem	millirem
NA	not applicable
NDA	nondestructive assay
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOC	notice of construction
NOC ID	notice of construction identification
NSL	nuclear spectroscopy laboratory



## ACRONYMS (cont)

PDIT	pressure differential instrument transmitter
PFP	Plutonium Finishing Plant
PLC	programmable logic controller
PNNL	Pacific Northwest National Laboratory
PTRAEU	portable temporary radioactive air emission unit
PUREX	Plutonium-Uranium Extraction (Plant)
REDOX	Reduction Oxidation (Plant)
SST	single shell tank
WAC	Washington Administrative Code
WDOE	Washington State Department of Ecology
WDOH	Washington State Department of Health
WESF	Waste Encapsulation Storage Facility
WRAP	Waste Receiving and Processing Facility
WSCF	Waste Sampling and Characterization Facility
WTP	Hanford Tank Waste Treatment and Immobilization Plant

## HANFORD SITE AIR OPERATING PERMIT SEMIANNUAL REPORT FOR JANUARY 1, 2007 THROUGH JUNE 30, 2007

### 1.0 INTRODUCTION

The Hanford Site Air Operating Permit (AOP), Number 00-05-006 originally effective on July 2, 2001, was renewed during 2006 with an effective date of January 1, 2007. One condition contained in AOP Section 4.3.3, *Semiannual Reports*, is the requirement to submit semiannual reports by March 15th and September 15th each year. The reports are required to be certified by a Responsible Official for truth, accuracy, and completeness.

Copies of semiannual reports are transmitted to the Washington State Department of Ecology (Ecology), the Washington State Department of Health (WDOH), the Benton Clean Air Authority (BCAA), and the U.S. Environmental Protection Agency (EPA), Region 10.

This semiannual report contains information from January 1, 2007 through June 30, 2007.

AOP Section 4.3.3, *Semiannual Reports*, identifies the following content for inclusion in the Semiannual Report.

1. "Each semiannual report will provide a reference to reports submitted to the regulatory agencies as required by General Conditions Section 4.5, 'Permit Deviation Reporting'. This information is provided in Section 2.0 of the Semiannual Report.
2. "Each semiannual report will consist of reports of any required monitoring not submitted according to Section 4.3 or reference to reports of required monitoring that were submitted previously during the reporting period". This information is provided in Section 4.0 of the Semiannual Report.
3. "Each semiannual report will contain a summary of any substantiated air emission complaint investigation(s) required in Table 1.2 of Attachment 1 and issued during the reporting period". This information is provided in Section 3.0 of the Semiannual Report.
4. "For all minor radioactive emission points (potential to emit  $<0.1$  mrem to the maximally exposed individual (MEI)) listed in Attachment 2, each semiannual report will contain a general statement confirming that any required monitoring was conducted to verify low emissions during the reporting period for those emission units with specific periodic monitoring required during that period". This information is provided in Section 5.0 of the Semiannual Report.
5. "For all emission units with continuous monitoring, a general statement will be provided stating that required monitoring operated continuously". This information is provided in Section 5.0 of the Semiannual Report.

6. "For an emission unit(s) that operated for any part of the calendar year, and was not closed per WAC 246-247-080(6), (reference to FF-01 Attachment 2) monitoring data will be reported in the annual NESHAP report. Diffuse and fugitive minor emission units listed in AOP, Attachment 2, are not required to be reported on except annually as a composite portion of the annual NESHAP report".

Diffuse and fugitive emission units are not included in the Semiannual Report.

7. "Each semiannual report will list any new regulatory orders (e.g., Notice of Construction or License to Operate) imposed during the reporting period by Ecology or Health".  
This information is provided in Section 6.0 of the Semiannual Report.

## 2.0 DEVIATION REPORTS

The following list of deviation reports was compiled from reports submitted directly to the regulatory agencies. Table 1 contains reports submitted during this reporting period as required by the AOP General Conditions Section 4.5 "Permit Deviation Reporting". The date column represents the date the regulatory agency was notified. Additional detail is available in the reference if one exists.

Table 1. Deviations Reported for the Period January 1, 2007 through June 30, 2007.

Date	Agency	Area	Location	Reference number	Description
1/2/07	WDOH	600	WSCF		696-W-1, unplanned shutdown of exhaust fan due unusual noise and subsequent replacement.
1/2/07	WDOH	200E	241-C Farm	CH2M-0700004	296-P-47, shutdown due to low seal pot alarm.
1/3/07	WDOH	200E	241-AY/AZ Farm	CH2M-0700005	296-A-42, A-Train HEGA filter failed its challenge test.
1/4/07	WDOH	200E	241-C Farm	CH2M-0700006	296-P-47, shut down due to low seal pot alarm.
1/4/07	WDOH	200E	241-C Farm	CH2M-0700007	296-P-47, shutdown due to low flow to Constant Air Monitor.
1/5/07	WDOH	200W	241-SY Farm	CH2M-0700009	296-S-25, shutdown due to drive belt failure.
1/5/07	WDOH	200E	241-C Farm	CH2M-0700010	296-P-47, shutdown due to low seal pot alarm.
1/5/07	WDOH	200E/ W	Various Tank Farms	CH2M-0700011	Multiple Tank Farm Exhausters, heavy wind induced spike on electrical system caused widespread outages throughout the Tank Farms.
1/8/07	WDOH	200W	U Plant & REDOX		Loss of U Plant and REDOX fans due to high winds.
1/10/07	WDOH	200E	242-A Evaporator	CH2M-0700014	296-A-21, record sampler was reported to have no flow and was placed out of service.
1/11/07	WDOH	200E	241-C Farm	CH2M-0700015	296-P-47, shut down due to low seal pot alarm.

Table 1. Deviations Reported for the Period January 1, 2007 through June 30, 2007.

Date	Agency	Area	Location	Reference number	Description
1/11/07	WDOH	200W	PFP		296-Z-6, temporary loss of fan for approx. 6 hours due to power bumps.
1/11/07	WDOH	200E	ETF		296-E-1, incomplete annual testing of the HEPA filters. Testing was continued in 11 days.
1/12/07	WDOH	200E	241-ER-311	CH2M-0700016	296-P-45, shutdown due to high seal pot level.
1/14/07	WDOH	200E	241-AN Farm	CH2M-0700017	296-A-30, record sampler was reported to have no flow and was placed out of service.
1/16/07	WDOH	200W	241-S Farm	CH2M-0700018	296-P-43, exhauster shutdown due to low record sampler flow.
1/17/07	WDOH	200E	241-C Farm	CH2M-0700019	296-P-47, exhauster shutdown due to high seal pot alarm.
1/17/07	WDOH	200E	241-AW Farm	CH2M-0700020	296-A-27, exhauster was inadvertently shut down while performing Pressure Differential Instrument Transmitter (PDIT) calibrations.
1/18/07	WDOH	200E	241-C Farm	CH2M-0700021	296-P-47, exhauster shutdown due to high seal pot alarm.
1/21/07	WDOH	200E	241-ER-311	CH2M-0700022	296-P-45, exhauster shutdown due to Programmable Logic Controller.
1/23/07	WDOH	200E	241-C Farm	CH2M-0700023	241-C-108, valve on exhauster ducting was found contaminated.
1/24/07	WDOH	200E	204-AR	CH2M-0700228	HS-G-1 and HS-G-2 filter banks exceeded their annual aerosol efficiency test timeframe while the exhauster is inactive.
1/30/07	WDOH	200W	241-TY Farm	CH2M-0700229	241-TY-104, breather filter failed at 99.89% efficiency.
1/31/07	WDOH	200W	241-SY Farm	CH2M-0700230	296-S-25, record sampler unplanned outage.
2/1/07	WDOH	200E	241-ER-311	CH2M-0700231	296-P-45, found shutdown due to unknown cause.
2/5/07	WDOH	600	WSCF		696-W-1, shut down and planned removal of one fan due to freezing conditions.
2/5/07	WDOH	200W	PFP		291-Z-1, failed annual filter test for filter room 310, E4 (-5).
2/7/07	WDOH	200W	241-SY Farm	CH2M-0700232	296-S-25, unplanned exhauster shutdown while performing maintenance.
2/8/07	WDOH	200E	241-C Farm	CH2M-0700233	296-P-47, contamination found on two flanges of inactive ventilation ducting going to 241-C-103.
2/13/07	WDOH	200W	241-S Farm	CH2M-0700234	296-P-43, unplanned shutdown due to CAM cabinet door being opened.
2/15/07	WDOH	200W	241-S Farm	CH2M-0700235	296-P-43, shutdown on low seal pot alarm.
2/16/07	WDOH	100KE	Ambient Air		Sample Station N403, Am-241 concentration greater than 10% of 40 CFR 61 Appx. E Table 2.

Table 1. Deviations Reported for the Period January 1, 2007 through June 30, 2007.

Date	Agency	Area	Location	Reference number	Description
2/21/07	WDOH	200E	242-A Evaporator	CH2M-0700236	296-A-22, shutdown due to power interruption.
2/26/07	WDOH	600	WSCF		696-W-2, planned shut down of fans to troubleshoot and restore ventilation to the administrative portion of the building.
2/26/07	WDOH	200E	CSB		296-H-212, loss of stack ventilation system due to power outage.
3/01/07	WDOH	200E	241-C Farm	CH2M - 0700237	296-P-47, 20,000 to 60,000 dpm/100 cm <sup>2</sup> smears on exhaust duct work.
3/02/07	WDOH	200W	241-S Farm	CH2M - 0700238	296-P-44, exhauster shut down due to unknown causes.
3/3/07	WDOH	600	WSCF		Went to single-train operation to correct a belt problem.
3/5/07	WDOH	200W	272-S Decon Facility	CH2M - 0700239	Glove bag failure.
3/6/07	WDOH	200W	241-S Farm	CH2M - 0700240	296-P-44, exhauster shut down due to high seal pot alarm.
3/14/07	WDOH	200E	241-AY/AZ Farm	CH2M-0700241	296-A-42, B Train HEGA filter failed Halide test.
3/19/07	WDOH	200E	242-A Evaporator	CH2M-0700242	296-A-22, exhauster shut down due to a tripped interface with software in the monitoring control system.
3/27/07	WDOH	200W	241-SY Farm	CH2M-0700243	296-P-22, exhauster found shutdown due to unknown causes.
3/29/07	WDOH	200W	241-SY Farm	CH2M-0700244	296-P-23, exhauster found shutdown due to unknown causes.
4/10/07	WDOH	200W	241-S Farm	CH2M-0700245	296-P-44, exhauster shutdown due to high radiation alarm.
4/10/07	WDOH	200W	241-SY Farm	CH2M-0700246	296-P-23, exhauster found shutdown possibly due to DP interlock alarm.
4/11/07	WDOH	200W	241-S Farm	CH2M-0700247	296-P-44, exhauster shutdown due to high differential pressure reading on first stage HEPA-false alarm.
4/12/07	WDOH	200W	Ambient Air		Sample Station N165, Pu-239/240 concentration greater than 10% of 40 CFR 61 Appx. E Table 2.
4/13/07	WDOH	200W	241-S Farm	CH2M-0700675	296-P-44, exhauster shut down due to high differential pressure reading on first stage HEPA.
4/21/07	WDOH	200E	241-AN Farm	CH2M-0700676	296-A-29, exhauster shut down due to Programmable Logic Controller (PLC) malfunction.
5/16/07	WDOH	200E	241-AW Farm	CH2M-0700677	296-A-28, exhauster found shut down reason unknown.
5/22/07	WDOH	200W	241-S Farm	CH2M-0700679	296-P-44, exhauster shutdown due to high Beta CAM alarm.

Table 1. Deviations Reported for the Period January 1, 2007 through June 30, 2007.

Date	Agency	Area	Location	Reference number	Description
5/23/07	WDOH	200E	241-AZ Farm	CH2M-0700681	296-A-42, (702-AZ Exhauster) found with record sampler out of service.
5/25/07	WDOH	600	WSCF		696-W-2, ventilation outage due to software error.
5/29/07	WDOH	200W	241-SY Farm	CH2M-0700682	296-P-23, exhauster found shutdown possibly due to power failure.
5/31/07	WDOH	200W	WSCF		Loss of power to NSL ventilation due to preventative maintenance test of the uninterruptible power supply failing.
6/04/07	WDOH	200E	241-AY/AZ Farm	CH2M-0700683	296-A-42, (702-AZ Exhauster) shutdown due to unknown causes.
6/04/07	WDOH	200W	241-SY Farm	CH2M-0700684	296-P-22, exhauster shutdown due to unknown causes.
6/05/07	WDOH	200W	241-S Farm	CH2M-0700685	296-P-44, exhauster shutdown due to a low seal pot alarm.
6/05/07	WDOH	200E	241-C Farm	CH2M-0700686	241-C-109 riser, seven day air sample count was 0.2 Derived Air Concentration (DAC).
6/07/07	WDOH	200E	241-C Farm	CH2M-0700687	296-P-47, unplanned shut down of exhauster, low record sample flow.
6/13/07	WDOH	200W	WRAP		296-W-4, record sampler loss of power.
6/14/07	WDOH	300	326 Building		326 Building, Contamination incident involving a failed Pu-238 sealed source. A 10-day report was hand delivered on 6/29/07.
6/14/07	WDOH	200E	241-AW Farm	CH2M-0700688	296-A-27, unplanned shutdown due to the CAM interlock signal.
6/14/07	WDOE	200E	241-AY/AZ Farm	CH2M-0700689	296-A-42, annual sampling detected 107 ppm of ammonia with an emission rate of 0.217 lbs/hr. The ammonia concentrations were later confirmed through additional sampling.
6/19/07	WDOH	200W	241-SY Farm, 219-S, 222-S	CH2M-0700690	296-P-23, unplanned shut down of exhauster. 296-P-22, unplanned shut down of exhauster. 296-S-16, unplanned shut down of exhauster. 296-S-12, unplanned shutdown of record sampler.
6/23/07	WDOH	200W	PFP		296-Z-5, stack automatic shut down due to fire alarm signal from faulty electronics panel.
6/26/07	WDOH	200W	PFP		296-Z-5, re-occurrence of same incident on 6/23/07; stack automatic shut down due to fire alarm signal from faulty electronics panel.
6/27/07	WDOH	200E	241-AZ Farm	CH2M-0700691	296-A-42, (702-AZ Exhauster) failed annual HEGA filter test on the A-Train.
6/28/07	WDOH	100K	CVDF		296-K-142, delay in performing the annual calibration of the stack flow measuring instrumentation.

Table 2 lists other documentation required by AOP General Conditions Section 4.5, such as agency requested follow-up documentation on reported deviations.

Table 2. Other Reports Submitted as Required by General Conditions, Section 4.5

Date	Title
1/31/07	Letter from John Martell (WDOH) to Pete J. Garcia (DOE-ORP), The purpose of this letter is to document the removal of emission units 296-S-22 (EU ID 165), 296-T-18 (EU ID 166), 296-B-28 (EU ID 208), 296-C-5 (EU ID 213), 296-P-16 (EU ID 234), and the NOC for Operation of the Radiological Counting Facility (NOC ID 675) from the FF-01, AIR 07-105, dated January 31, 2007.
2/14/07	Letter from Roy J. Schepens (DOE-ORP) to Jane Hedges (Ecology), " <i>Washington State Department of Ecology Technical Assistance Letter</i> ", 07-ESQ-016, dated February 14, 2007.
4/27/07	Letter from Shirley J. Olinger (DOE-ORP) to Jane Hedges (Ecology), " <i>Notice of Violations NO. DE 4218</i> ", 07-ESQ-064, dated April 24, 2007.
5/9/07	Letter from Shirley J. Olinger (DOE-ORP) to Jane Hedges (Ecology), " <i>Submittal of First Quarter 2007 Assessment of Stack Samples Per Washington State Department of Ecology (Ecology) Notice of Violation Number DE 4218</i> ", 07-ESQ-070, dated May 9, 2007.
5/15/07	Letter from Shirley J. Olinger (DOE-ORP) signed by W. Taylor (DOE-ORP) to Jane Hedges (Ecology), "Request for Modification to Criteria and Toxics Air Emissions Notice of Construction (NOC) Application for Operations of Waste Retrieval Systems in Single-Shell Tank (SST) Farms", 07-ESQ-088, dated May 15, 2007.
5/16/07	Letter from Shirley J. Olinger (DOE-ORP) signed by W. Taylor (DOE-ORP) to Jane Hedges (Ecology), " <i>Request for Modification to Criteria and Toxics Air Emissions Notice of Construction (NOC) Application for Operation of New Ventilation Systems in AN and AW Tank Farms</i> ", 07-ESQ-091, dated May 16, 2007.

### 3.0 AIR EMISSION COMPLAINT INVESTIGATIONS

No substantiated air emission complaints were received by the U.S. Department of Energy, Richland Operations Office (DOE-RL) or by the U.S. Department of Energy, Office of River Protection (DOE-ORP) from Ecology as specified in the AOP Attachment 1, Table 1.2, during this reporting period.

#### 4.0 PERMIT REQUIRED MONITORING REPORTS

Table 3 lists the required monitoring reports submitted during the reporting period.

Table 3. Permit Required Monitoring Reports.

Date	Title
1/31/07	HEPA Vacuum Log Sheets for the 4 <sup>th</sup> Quarter 2006
3/27/07	07-SED-0196, DOE/RL-2007-17 <i>Portable/Temporary Radioactive Air emission Units and High-Efficiency Particulate Air Filtered Vacuum Radioactive Air Emission Units Annual Report for Calendar Year 2006</i>
4/13/07	07-SED-0217, DOE/RL-2007-11 <i>Calendar Year 2006 Criteria and Toxic Air Pollutants Air Emissions Inventory</i>
4/26/07	HEPA Vacuum Log Sheets for the 1 <sup>st</sup> Quarter 2007
6/29/07	07-SED-0300, DOE/RL-2007-01 <i>Radionuclide Air Emissions Report for the Hanford Site, Calendar Year 2006</i>

#### 5.0 STATUS OF REQUIRED MONITORING

Table 4 contains the status of required monitoring during this reporting period for minor radioactive emission units and all emission units with continuous monitoring requirements.

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200E P-241C111-001 241-C-111	1	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200 W-296P045-001 296-P-45	50	Continuous – record sample collected biweekly	Yes	
200W P-296P022-001 296-P-22	53	4 week sample/ year – record sample	Yes	
200W P-296P028-001 296-P-28	54	Non-Operational	NA	Unit is non-operational
200W P-296SY-001 296-P-23	56	4 week sampler/ year – record sample	Yes	
200 W-296P043-001 296-P-43	57	Continuous – record sample collected biweekly	Yes	
200 W-296P044-001 296-P-44	58	Continuous – record sample collected biweekly	Yes	
200W S-296S025-001 296-S-25	59	4 week sample/year – record sample	Yes	



Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
600 S-6266-001 696-W-1	62	2 week sample/quarter	Yes	
600 S-6266-002 696-W-2	63	2 week sample/quarter	Yes	
200W P-296SX-001 296-S-15	64	4 week sample/year	NA	Unit is physically closed. Preparing formal closure report.
200W P-241T105-001	65	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200W P-241T106-001	66			
200W P-241T109-001	67			
200W P-241T102-001	68			
200W P-241T107-001	69			
200W P-241T111-001	70			
200W P-241T104-001	71			
200W P-241T112-001	72			
200W P-241T108-001	73			
200W P-241T203-001	74			
200W P-241T204-001	75			
200W P-241T110-001	76			
200W P-241T202-001	77			
200W P-241T103-001	78			
200W P-241T101-001	79			
200W P-241T201-001	80			
200W P-241TY106-001	81			
200W P-241TY102-001	82			
200W P-241TY105-001	83			
200W P-241TY104-001	84			
200W P-241TY103-001	85			
200W P-241TY101-001	86			
200E P-241A103-001	87			
200E P-241A104-001	88			
200E P-241A102-001	90			
200E P-241A105-001	91			
200E P-241A101-001	92			
200E P-296A042-001 296-A-42	93	Continuous	Yes	
200E P-241A106-001 241-A-106	94	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E P-204AR-001 296-A-26	96	4 week sample/year	No	Facility is inactive. Exhauster operated only to test HEPA filters annually.

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200W P-241U103-001	97	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200W P-241U108-001	98			
200W P-241U107-001	99			
200W P-241U203-001	100			
200W P-241U102-001	101			
200W P-241U201-001	102			
200W P-241U101-001	103			
200W P-241U204-001	104			
200W P-241U109-001	105			
200W P-241U202-001	106			
200W P-241U111-001	107			
200W P-241U112-001	108			
200W P-241U104-001	109			
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200W P-241TX112-001	115			
200W P-241TX105-001	116			
200W P-241TX113-001	117			
200W P-241TX104-001	118			
200W P-241TX114-001	119			
200W P-241TX103-001	120			
200W P-241TX110-001	121			
200W P-241TX116-001	122			
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200W P-241TX102-001	124			
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200W P-241S101-001	132			
200W P-241S103-001	133			
200W P-241S102-001	134			
200W P-241S108-001	135			
200W P-241S109-001	136			
200W P-241S105-001	137			
200W P-241S110-001	138			
200W P-241S106-001	139			
200W P-241S107-001	140			
200E P-242A-001 296-A-21	141	4 week sampler/year – record sample	Yes	

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200E P-242A-002 296-A-22	142	One week sample/qtr, and continuous sampling during campaign – record sample	Yes	
200 P-296P032-001 296-P-32	145	Non-Operational	NA	Unit is non-operational.
200E P-242AL44-001 LERF Basin #44	146	Every 2 weeks continuous/deposition annually	Yes	
200E P-242AL43-001 LERF Basin #43	147	Every 2 weeks continuous/deposition annually	Yes	
200E P-242AL42-001 LERF Basin #42	148	Every 2 weeks continuous/deposition annually	Yes	
200E P-296AW-001 296-A-27	150	4 week sample/year – record sample	Yes	
200E P-296A028-001 296-A-28	156	4 week sample/year – record sample	Yes	
200W P-242T-001 296-T-17	162	4 week sample/year – record sample	NA	Unit is physically closed. Preparing formal closure report.
200W P-242S-001 296-S-18	163	4 week sample/year – record sample	Yes	
200W P-244S-001 296-S-22	165	Non-Operational	NA	Unit is non-operational
200W P-244TX-001 296-T-18	166	Non-Operational	NA	Unit is non-operational
100K R-1706KE-001 1706KE	168	4 week sample/year	Yes	
200E P-296A020-001 296-A-20	174	4 week sample/year – record sample	Yes	
300 EP-318-01-S EP-318-01-S	175	2 week sample/year	Yes	
200W P-296W004 001 296-W-4	193	Continuous, collect samples bi-weekly at a minimum	Yes	
200W P-241SX115-001 200W P-241SX113-001 200W P-241S111-001 200W P-241S112-001	200 201 202 203	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E P-296AP-001 296-A-40	204	2 week sample/quarter – record sample	Yes	
200E P-296A041-001 296-A-41	205	4 week sample/year – record sample	Yes	

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200E P-244BX-001 296-B-28	208	Non-Operational	NA	Unit is non-operational
200E P-296P031-001 296-P-31	210	Continuous	Yes	
200E P-244CR-001 296-C-5	213	Non-Operational	NA	Unit is non-operational
200E P-296A043-001 296-A-43	216	4 week sample/year – record sample	Yes	
200E P-296A018-001 296-A-18	217			
200E P-296A019-001 296-A-19	218			
200E P-296AN-001 296-A-29	227			
200E P-296A030-001 296-A-30	228			
200E P-241C107-001 200E P-241C108-001 200E P-241C112-001 200E P-241C201-001	230 231 232 233	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E P-296P016-001 296-P-16	234	Non-Operational	NA	Unit is non-operational
200E P-241C204-001 241-C-204	235	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E C-106 Sluicing 296-C-6	236	Non-Operational	NA	Unit is non-operational
200E P-241C102-001 200E P-241C203-001 200E P-241C110-001 200E P-241C109-001 200E P-241C202-001 200E P-241C101-001	237 242 244 245 246 247	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200W S-296S021-001 296-S-21	254	Continuous – record sample	Yes	

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200E P-241BX104-001	255	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E P-241BX110-001	256			
200E P-241BX103-001	257			
200E P-241BX107-001	258			
200E P-241BX101-001	259			
200E P-241BX112-001	260			
200E P-241BX106-001	261			
200E P-241BX102-001	262			
200E P-241BX109-001	263			
200E P-241BX111-001	264			
200E P-241BX108-001	265			
200E P-241B105-001	266			
200E P-241B201-001	267			
200E P-241B108-001	268			
200E P-241B101-001	269			
200E P-241B102-001	270			
200E P-241B204-001	271			
200E P-241B104-001	272			
200E P-241BX105-001	273			
200E P-241B112-001	274			
200E P-241B107-001	275			
200E P-241B111-001	276			
200E P-241B109-001	277			
200E P-241B110-001	278			
200E P-241B103-001	279			
200E P-241B202-001	280			
200E P-241B106-001	281			
200E P-241B203-001	282			
200E P-241BY101-001	283			
200E P-241BY105-001	284			
200E P-241BY106-001	285			
200E P-241BY102-001	286			
200E P-241BY112-001	287			
200E P-241BY103-001	288			
200E P-241BY104-001	289			
200E P-241BY109-001	290			
200E P-241BY108-001	291			
200E P-241BY111-001	292			
200E P-241BY110-001	293			
200E P-241BY107-001	294			
200E P-2025E ETF 296-E-1	301	4 week sample/year	Yes	
200E P-241AX104-001	302	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E P-241AX102-001	303			
200E P-241AX103-001	304			
200E P-241AX101-001	305			

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200W P-213W-001 296-W-3	308	Non-Operational	NA	Unit is non-operational
200W P-291U001-001 291-U-1	310	4 week sample/year	No	Monitoring is conducted in second half of year
200W P-291T001-001 291-T-1	314	Continuous	Yes	
200W P-296T007-001 296-T-7	315	Continuous (when operating)	Yes	
200W P-291S001-001 291-S-1	332	4 week sample/year	No	Monitoring is conducted in second half of year
200W P-296S016-001 296-S-16	337	4 week sample/year – record sample	Yes	
200E P-296B010-001 296-B-10, WESF	340	Continuous	Yes	
300 EP-320-02-S EP-320-02-S	355	2 week sample/year	Yes	
300 EP-320-04-S EP-320-04-S	357	2 week sample/year	Yes	
300 EP-320-01-S EP-320-01-S	358	2 week sample/year	Yes	
300 EP-323-01-S EP-323-01-S	359	2 week sample/year	Yes	
300 EP-325-01-S EP-325-01-S	361	Continuous	Yes	
300 EP-326-01-S EP-326-01-S	362	2 week sample/year	Yes	
300 EP-329-01-S EP-329-01-S	366	2 week sample/year	Yes	
200E P-291A001-001 291-A-1	369	Continuous	Yes	
200E P-296A010-001 296-A-10	384	1 week sample/year (when operating)	No	Unit did not operate during reporting period.
400 P-437MN&ST-001 437-MN&ST	385	4 week sample/year	No	Monitoring is conducted in second half of year.
200W P-296Z005-001 296-Z-5	389	4 week sample/year	Yes	Sampled continuously with a representative 4 weeks selected during the second half of the year.
200W P-296Z006-001 296-Z-6	390	4 week sample/year		
200W P-291Z001-001 291-Z-1	393	Continuous	Yes	
400 P-FFTFRESB-001 FFTF-RE-SB	395	4 week sample/year	No	Monitoring is conducted in second half of year
400 P-FFTFHTTR-001 FFTF-HT-TR	396	4 week sample/year	No	Monitoring is conducted in second half of year
400 P-FFTFCEBEX-001 FFTF-CB-EX	397	4 week sample/year	No	Monitoring is conducted in second half of year

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
400 Sodium Storage Facility FFTF-402-1	398	AIR 06-1007, Condition 5	No	Monitoring is conducted in second half of year
400 P-437-002 437-1-61	399	4 week sample/year	No	Monitoring is conducted in second half of year
200E P-296B001-001 296-B-1	402	Continuous	Yes	
300 EP-331-01-V EP-331-01-V	412	Continuous	Yes	
300 EP-3730-01-S EP-3730-01-S	417	2 week sample/year	Yes	
300 P-340DECON-001 340 Decon	422	4 weeks/year	Yes	
300 P-340NTEX-001 340-NT-EX	423	4 one week samples each year	Yes	
200E P-296H212 001 296-H-212 (CSB)	435	Record filter counted annually using gamma spectrometer calibrated to Cs-137	Yes	
100K P-296K142 001 296-K-142	436	Monthly sample	Yes	
200W S-296S023-001 296-S-23	438	1 NDA every 2 years	Yes	NDA performed May 2007
200W J-CWC 001 Central Waste Complex	439	Near Field ambient monitoring program unless specified by NOC	Yes	
Hanford Sitewide type-1, type-2, type-3	447	Annual NDA, record sampler, or continuous air monitoring; AIR 06-1025, Condition 4	Yes	
Hanford Sitewide Vented Containers	448	Air every 2 weeks continuous/deposition – annually  Environment Sampling	Yes	
200 200 Area ISA 200 Area Interim Storage Area (ISA)	454	Smear survey – annual	Yes	
Hanford Sitewide W- PORTEX 007 HEPA vacuums	455	AIR 06-1024 Condition 5	Yes	
200 W-PORTEX 011 Permacon Unit	461	Quarterly	NA	Unit not used during reporting period.
200 J-NONPOINT 012 Purgewater Modutanks	465	Air – every 2 weeks, continuous/deposition – annually	Yes	

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200W P-Trench31-001 Leachate Collection Tank for Trench 31	472	Before and after emptying the tank. When the tank is not empty, take a monthly smear (after commencement of bulk waste disposal).	Yes	
200W P-Trench34-001 Leachate Collection Tank for Trench 34	473	Before and after emptying the tank. When the tank is not empty, take a monthly smear (after commencement of bulk waste disposal).	Yes	
Hanford Sitewide Guzzler-001 Guzzler™	476	When HEPA filters are replace and annually screening the HEPA filtration system	NA	Unit did not operate during the reporting period.
200 W-296P047-001 296-P-47	498	Continuous – record sample collected biweekly	Yes	
200W P-296Z007 001 296-Z-7	503	Continuous	Yes	
200 P-Vadose-002 Air Rotary Drilling	539	Record filter counted annually	NA	Unit did not operate during the reporting period.
200 P-Vadose-003 Air Hammer Drilling	541	After each borehole and record filter counted annually	NA	Unit did not operate during the reporting period.
200E P-241C-004 241-C-106 200E P-244CR-002 244-CR Vault Passive Filter A 200E P-241C-002 241-C-104 200E P-241C-003 241-C-105	712 713 716 717	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E P-296A044-001 296-A-44	735	Continuous – record sample collected biweekly	NA	Never operated. Hot startup scheduled for 2007
200E P-296A045-001 296-A-45	736	Continuous – record sample collected biweekly	NA	Never operated. Hot startup scheduled for 2007



Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200E P-241C103-001 241-C-103	737	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200E P-244A-002 244-A Primary HEPA	738			
200E P-244BX-002 244-BX Primary HEPA	740			
200W P-244S-002 244-S Primary HEPA	742			
200W P-244TX-002 244-TX Primary HEPA	744			
200 W-296P048-001 296-P-48	749	Continuous – record sample collected biweekly	NA	Unit not operated during this reporting period.
200E P-241AZ301-001 241-AZ-301	751	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
200W DVS - Active Drum Venting System (Active Vent)	755	Smears of the exhaust vent at the end of each shift of operation	Yes	
200W DVS - Passive Drum Venting System (Passive Vent)	756	Smears of the exhaust vent at the end of each shift of operation	Yes	
200E P-296A046-001 296-A-46	855	Continuous – record sample collected biweekly	NA	Never operated. Hot startup scheduled for 2008
200E P-296A047-001 296-A-47	856	Continuous – record sample collected biweekly	NA	Never operated. Hot startup scheduled for 2008
200W Concrete Containers Concrete Containers	874	Radiological surveys annual at a minimum	No	Monitoring is conducted in second half of year
200W P-BULKVIT-001 Bulk Vit Demo Exhauster	878	Continuous	NA	Never operated.
200 W-296P049-001 296-P-49	885	Continuous	NA	Never operated.
200 W-296P050-001 296-P-50	886	Continuous	NA	Never operated.
200E J-244ER152-002 244-A Lift Station Valve Pit	887	None listed	No	Monitoring is conducted in second half of year
Hanford Sitewide Tanker Loading of Contaminated Waste Water	888	As listed in the Conditions and Limitations	Yes	AIR 06-1050 Condition 5.

Table 4. Status of Required Monitoring.

Emission point	EP ID	Required monitoring	Monitoring completed? (Yes, No, or NA)	Comment
200W P-241UX302A-001 241-UX-302A 200 E P-241ER311-001 ER311 200E P-244A-003 244-A Annulus HEPA 200E P-244BX-003 244-BX Annulus HEPA 200W P-244S-003 244-S Annulus HEPA 200W P-244TX-003 244-TX Annulus HEPA 200W P-241U301B-001 241-U-301B 200E P-241AZ154-001 241-AZ-154	894 910 912 922 959 969 1129 1130	Smear survey, 1 per year	No	Monitoring is conducted in second half of year
400 FFTF PTRAEU's	1176	Samples of waste water, prior to transfer or once per calendar year during operations	No	Monitoring is conducted in second half of year

<sup>TM</sup>Guzzler is a register trademark of Guzzler Manufacturing, Inc., Birmingham, Alabama.

**6.0 REGULATORY ORDERS ISSUED DURING THE REPORTING PERIOD**

Table 5 lists the regulatory approvals issued by WDOH and Ecology during this reporting period. The information contained in Table 5 is an AOP permit only requirement not mandated in Chapter 173-401 Washington Administrative Code (WAC) Operating Permit Regulation.

Table 5. Regulatory Approvals Issued from January 1, 2007 through June 30, 2007.

Permit number	Date Issued	Title/Subject
00-05-006 Renewal 1	12/29/06 (effective 1/1/07)	Hanford Site Title V Air Operating Permit Renewal
00-05-006 Renewal 1, Rev. A	5/3/07	Hanford Site Title V Air Operating Permit Revision
AIR 06-1206	12/28/06 (effective 1/1/07)	Hanford Site Radioactive Air Emission License FF-01 Renewal
AIR 07-105	1/31/07	Hanford Site FF-01 License Update
AIR 07-203	2/9/07	Approval to Construct WRAP Headspace Gas Sampling Analyses
AIR 07-302	3/9/07	Hanford Site FF-01 License Update
AIR 07-304	3/23/07	Approval to Operate WRAP Headspace Gas Sampling Analyses
AIR 07-305	3/23/07	Approval to Operate Categorical Waste Retrieval and Closure Phase 2, Operations at SSTs
AIR 07-306	3/23/07	Approval to Operate T Plant Consolidated Operations, Approval Conditions 10, 21, and 23 Revision
AIR 07-307	3/23/07	Approval to Operate the Transuranic Waste Retrieval Project, Rev. 4
AIR 07-308	3/29/07	Approval to Operate WRAP Construction and Operation Rev 1B
AIR 07-402	4/13/07	Approval to Construct the LERF and 200 Area ETF, Addition of the Solidification Treatment Unit
AIR 07-503	5/16/07	Approval to Operate the 361 Building
AIR 07-505	5/18/07	Approval to Operate the Installation and Operation of a Waste Retrieval System in SST 241-S-102
AIR 07-507	5/31/07 (effective 6/1/07)	Hanford Site FF-01 License Update (fee recovery appeal settlement)
AIR 07-601	6/8/07	Approval to Construct Construction of the WTP LAW Vitrification Plant Rev. 4A
DE07NWP-001	4/19/07	Approval Order for the HAMMER Training Facility
DE07NWP-002	6/27/07	Approval Order for the 100B Area Water Export System Diesel Engines Replacement Project L-626
DE07NWP-003	6/6/07	Approval Order for the Operation of the LERF and 200 Area ETF, Addition of the Solidification Treatment Unit

Table 5. Regulatory Approvals Issued from January 1, 2007 through June 30, 2007.

Permit number	Date Issued	Title/Subject
Temporary-Sitewide	5/24/07	Approval of Hanford Site Portable and Temporary Non-Road Engines Notice
Temporary-WTP	1/31/07	Temporary Construction Site Heater approval
Temporary-CH2M	1/31/07	Portable and Temporary Diesel Generator Use During Tank Retrieval

## 7.0 REFERENCES

*Hanford Site Title V Air Operating Permit 00-05-006 Renewal 1*; effective January 1, 2007, Washington State Department of Ecology, Washington State Department of Health, and Benton Clean Air Authority.

*Hanford Site Title V Air Operating Permit 00-05-006 Renewal 1, Revision A*; effective May 3, 2007, Washington State Department of Ecology, Washington State Department of Health, and Benton Clean Air Authority.

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